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ABSTRACT

This practicum was designed: (1) to familiarize elementary school teachers with pertinent measurement and evaluation concepts and tests; (2) to delineate the teacher's role in the referral process and to provide selection criteria to identify potential referrals more accurately; (3) to provide information on the interpretation of aptitude test data; (4) to maximize knowledge of the child's learning skills; and (5) to familiarize teachers with the role of the school psychologist. A discussion of the need for inservice training on the psychological referral process points out a perceived lack of knowledge in teachers of placement criteria, measurement and evaluation procedures, and pertinent statistical concepts. The results of a trial practicum with 66 elementary school teachers suggest that such training should become a part of the school psychologist's repertoire, particularly in dealing with school personnel. The appendices include a test item bank, some important measurement terms, important concepts in testing, and brief case histories. References are also included. (Author/JD)

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PRACTICUM REPORT

Center for the
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Ed.D. Program

Increasing the Knowledge Base
of Elementary School Teachers
to Streamline the Psychological
Referral Process

by

Barbara Fisher

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NOVA UNIVERSITY

Increasing the Knowledge Base of Elementary School Teachers to Streamline the Psychological Referral Process

by

Barbara Fisher

Cluster XXII

A Practicum I Report Presented to the Ed. D. Program
in Early and Middle Childhood
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

NOVA UNIVERSITY

1987

On 3

PRACTICUM APPROVAL SHEET

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Approved:

September 1, 1987
Date of Final Approval of Report

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V. K. Kumar, Ph. D., Adviser

The writer wishes to acknowledge the following individuals without whose help and guidance this practicum could not have come to fruition: Dr. Mary Ellen Sapp, Director of Practicums, Nova University; Dr. V. K. Kumar, Practicum Adviser, Nova University; Mr. Ronnie Fisher, Sylvia Fisher, and Mark Fisher, the writer's family; the writer's parents; and those special colleagues and friends who offered the writer constant encouragement. She extends particular thanks to Mrs. Ada Barnes and Mrs. Rosemarie Jaworski for their cooperation and good wishes. To all of these people the writer is deeply indebted.

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Abstract

Increasing the Knowledge Base of Elementary School Teachers to Streamline the Psychological Referral Process. Fisher, Barbara T., 1987: Practicum Report, Nova University, Ed. D. Program in Early and Middle Childhood. Descriptors: Ability Identification/Diagnostic Tests/Inservice Teacher Education/Special Education Teacher Role/Evaluation Methods/Staff Improvement/Student Evaluation

This practicum was designed to familiarize elementary school teachers with pertinent measurement and evaluation concepts and tests; to delineate the teacher's role in the referral process and to provide selection criteria to identify potential referrals more accurately; to provide information on the interpretation of aptitude test data to maximize knowledge of the child's learning skills; and to familiarize teachers with the role of the school psychologist.

The writer surveyed the need for such inservice as perceived by her school principals and by other area psychologists. She then administered a pretest to determine prior knowledge; distributed materials on test scores and terms, the referral process, types of exceptionalities, and placement procedures; and posttested to measure any increase in knowledge in these areas.

Inservice training was conducted for 34 teachers from one school, and 32 teachers from another school. The data pertaining to the objectives were analyzed separately for the two schools. Results (using t tests for correlated means) showed that teachers in both schools improved their knowledge base significantly ($p = .001$). Teachers from both schools were able to make appropriate referrals in sample test cases presented to them. In general, teachers rated the scope and the purpose of the program favorably.

CHAPTER I

INTRODUCTION

Description of Community

The following practcium is set in two elementary schools located in a city in South Florida. The city was established in 1917 by a prominent inventor and real estate developer who was inspired by a rather picturesque body of literature. It was incorporated in 1926, and was populated primarily by middle-class whites. Since that time, migrations into the area have fostered changes to the extent that the city and, therefore, its schools are multi-ethnic. According to statistics published by the Chamber of Commerce, the city is one of the fastest growing in the county with a 21.5 annual percentage increase from 1970 to 1980. It occupies approximately 4.5 square miles of land area, and is located in the northern central portion of the county. It is one of 28 cities comprising the county.

The city is governed by a commission-manager, with an elected mayor, vice-mayor, and three commission members. The mayor and vice-mayor are elected from the two highest vote getters for 4 year terms. The last 2 years are served as commissioners unless the individual elects to run again after the initial 2 years in order

to retain his previous status.

Economically, the city is characterized by industrial parks and other light commercial industry. As of 1984-85 there were 20 major companies producing various goods, including electronic and industrial equipment, clothing, textiles, and furniture. In terms of labor, in 1980 there were 7,234 in the civilian work force, with 6,728 employed and 506 (7.1%) unemployed. These figures do not include those not actively seeking employment or those considered youthful employees (15 to 17 years of age).

The city is the site of 4 elementary schools, 2 of which are private and 2 of which are public. There are also 5 institutions of higher learning within a short distance of the city.

One of the 2 schools (school A) selected for this study was begun as a portable in 1926. Eleven years later a permanent two story steel and concrete structure was erected on six acres. Today this building and adjacent portables house 33 self-contained classrooms.

There are currently 73 staff members and 15 cafeteria employees. Thirty-four percent of the teachers have Master's degrees; none has a Specialist or a Doctorate. The average number of years of teaching in Florida was 7 (as of the 1985-86 school year). There

were 3 beginning teachers and 8 teachers new to the particular school during the 1985-86 school year. Within the regular program the pupil-teacher ratio was 18:1.

The student body itself is comprised of approximately 1,050 students, with Hispanics and Black Non-hispanics predominating. It is a rather transient population with students transferring periodically in and out, usually to other schools within the same area. Most students have lower-middle or upper-lower class backgrounds. Approximately 96% are in basic education, and 3% are in special education. In terms okf the statewide assessment test, the school exceeded 80% in all areas at grades 3 and 5, thus maintaining its status as a nondeficient school.

Special services provided for the student body are speech and hearing, expressive arts, Chapter 1 remedial classes, and ESOL (English as a second language). There are also Specific Learning Disabilities, Educable Mentally Handicapped classes for those who qualify. There are also a full-time counselor, a visiting teacher, and an itinerant psychologist.

School B is located within the same geographical

area as school A, with students sharing similar socio-economic backgrounds. It was established in 1975 on 10 acres and consisted of portables. Some time later a permanent concrete, two-story building was constructed. It is a pod school which means that classrooms are divided by partitions rather than by walls. It is staffed by 55 full-time and 38 part-time employees. Forty percent of the instructional staff (including administrators) have Master's, none has a Specialist, and two have Doctorates. There are 3 beginning teachers and 5 who are new to the school this year. The average number of years teaching in Florida is 10. Within the regular program the pupil teacher ratio is 19:1.

With regard to student characteristics, the majority are Black non-Hispanics, with white non-Hispanics being in the minority. Approximately 862 (96%) students are in basic education, 34 (4%) are in exceptional education, and 1 (fewer than 1%) is in an alternative program; 312 (34%) are in Chapter 1 remedial classes.

Ancillary personnel serving this school include a full-time counselor, a speech clinician, a part-time visiting teacher, and a part-time school psychologist. The psychologist serves two days a week on alternating

weeks and one day a week during the remainder of the month.

Writer's Role and Responsibilities

The writer has a Bachelor's Degree in English and Sociology, a Master's Degree in Guidance and Counseling, and a Specialist's Degree in Student Personnel Work. She has also had extensive inservice training in various assessment techniques. She has been employed as a guidance director in a private school, a rehabilitation counselor in a sheltered workshop, and a special education teacher. For the past several years she has worked as an area psychologist, serving 4 elementary schools.

Her role in two of the schools is to evaluate and place students referral for special programs, such as gifted, learning disabled, emotionally handicapped, and educable and trainable mentally handicapped classes. The psychological instruments she uses in her work include individualized ability tests (Wechsler Scales, Stanford-Binet-Revised); achievement tests (Wide Range Achievement Test-R); tests of visual-motor integration (Bender Gestalt, Beery and Buktenica Test of Visual Motor Integration); tests of perceptual processing (Detroit Tests of Learning Aptitude); and tests of personal adaptation (House-Tree-Person,

Sentence Completion Test, Rorchach, Thematic Apperception Test). She administers the appropriate test battery to students individually and then reports the results back to the school. A staffing session, involving teachers, parents, and a placement specialist is arranged to evaluate the student's needs and learning characteristics. Recommendations are made regarding interventions and placement decisions. If a child is placed in a special class, it is the responsibility of the writer tok re-evaluate that child after 3 years. She also consults with school personnel regarding students who may have adjustment difficulties.

CHAPTER II

STUDY OF THE PROBLEM

Description of the Problem Situation

In carrying out her responsibilities within her work setting, the writer has two broad objectives. The first is to assess as completely as is possible the strengths, weaknesses, and particular needs of those students referred to her. The second is to communicate to those involved, such as parents and teachers, her findings in as meaningful a manner as possible. Parents must be informed because their permission is needed to obtain special assistance for their children. The teachers must understand test results in order to avoid demanding too much of the child and to use methods and materials to facilitate the learning process of the child.

Over a period of 15 years as a school psychologist, the writer observed that many teachers were unfamiliar with test terminology and, therefore, found it difficult to communicate with them. Many teachers were also not completely aware of placement procedures, because these guidelines are changed periodically and are generally unavailable to the regular classroom teacher. Those affected were primarily classroom teachers. Whereas special education teachers must deal with these issues

daily, the typical teacher preparation program at the college level does not necessarily include this subject matter. Teacher awareness of the differences among various categories of exceptionalities was, therefore, not as extensive as it could have been, particularly in the areas of learning disabilities as differentiated from impaired learning ability or emotional involvement as opposed to social maladjustment.

Then, too, a particular viewpoint prevails which places special children within the purview of the exceptional education program and which considers their needs tangential to the regular program. It was not necessarily that the classroom teachers were calloused, but rather that they felt unqualified to deal with these children. They saw knowledge of measurement and of special needs as outside of their professional domain.

Thus, there existed a lack of communication between the psychologist and the classroom teacher. While this has not resulted in personal animosity, it had prevented the full utilization of the teacher's skills in working with the child. In addition, frustration arose when a teacher spent considerable time on the paperwork necessary to refer a child, and the child was not placed because she/he did not meet the necessary selection

criteria. Allowing that it is impossible for teachers to determine exactly which children in their classes would qualify for special placement, it is still very likely that teachers armed with knowledge and awareness of this information would greatly reduce the number of incorrect referrals and enhance their "hit" rate. Accomplishment of this aim would facilitate the mutual efforts of the psychologist and the teacher.

The problem had not been addressed previously partly because of the other demands of time and energy which had been placed on both the teachers and the psychologist. These demands had precluded the type of inservice needed to familiarize the staff with the information that would ameliorate the situation.

Briefly stated, the problem was that teachers did not possess knowledge concerning certain technical aspects of the psychologist's job. These topics were placement criteria, measurement and evaluation procedures, and pertinent statistical concepts. This incomplete knowledge resulted in faulty communication and "unsuccessful" referrals. Increased knowledge and understanding of these concepts would result in better utilization of the teachers' and the special services teams' time and efforts.

Documentation of the Problem

In order to establish the existence of a problem and to assess its extent, the writer conducted three surveys.

For the first survey elemtary school principals were interviewed from the schools which were directly involved in the practicum. Focusing on their own understanding of their staff's knowledge and needs, the principals were asked to respond to the following questions on a 4-point scale (complete understanding, some understanding, little understanding, and no understanding):

1. Do teachers understand psychological test scores?

2. Are teachers able to interpret correctly psychological reports?

3. Are teachers aware of the various classifications of exceptional children?

4. Are teachers aware of the placement procedures for the above-mentioned categories of students?

5. Do teachers understand correctly the role of the school psychologist?

6. In your expert opinion, which areas are in most need of inservice?

As Table 1 indicates, the principal of elementary

school A answered somewhat to questions (1), (2), (3), and (4), and complete to question (5). To question (6) she pointed out that there were no glaring needs but that more information on categories and placement procedures would be productive. The principal of school B responded the same way to all of the questions but wanted more information included on the testing process, what happens when the referral packet is complete, the meaning of scores, and the use of scores to work with children. She felt that this should be written in a paragraph section of the report.

Table 1

Psychologists' Perceptions of Teachers' Knowledge (N = 16)

Item	Rating			
	Complete	Some	Little	None
Knowledge of Psychol. Test Scores	0	10	6	0
Ability to interpret Psychol. Reports	0	6	4	6
Awareness of Exceptionalities	0	7	2	7
Awareness of placement Procedures	0	3	4	9
Understanding of Psychologist's Role	0	11	2	3

For the second survey the writer sent the same questionnaire to the other 16 psychologists in her office to determine whether or not this is an isolated problem. The results are summarized in table 1.

No psychologists considered teachers to be totally informed on these issues. It was apparent, then, that the problem went beyond idiosyncratic styles of functioning and warranted inservice training either at the preparatory or at the professional level.

The writer finally examined the logs which she had maintained over the past years, as a requirement established by the Discrict Office. She had tested 166 students at 3 schools and had kept records of those who had been placed and those who had not. Of the total number of students tested, 64 (39%) had been placed, while 102 (61%) had not. This was further confirmation of a need for training in this area.

Analysis of the Causes

Although the reasons for the problem had already been mentioned, they had to be examined in greater depth. Most teacher training programs require one course in tests and measurements, generally a survey course, which is not sufficient for a full understanding of areas covered in psychological reports. This is

particularly the case when psychologists deal with affective functioning. Several of the instruments used by the psychologist require specialized training, which is difficult for most people to acquire. An example would be projective devices, such as the Rorschach and the Thematic Apperception Test, which explore somewhat inaccessible aspects of personal adaptation. These techniques are generally taught in very specialized workshops, which are not in the teacher'sregular curriculum. Furthermore, when such courses are offered through more traditional channels, it is usually through departments of psychology, at times when teachers are working. The result has been that the typical teacher has had little or no exposure to this information.

At the school level, there are many other duties which engage the time and energy of teachers and psychologists, thus limiting the amount of time available for meaningful inservice. The writer is responsible not only for testing one student a day but also for scoring the tests, writing reports, and staffing students into appropriate classes. Teachers, in turn, must write lesson plans, confer with parents, and take care of other paper work, such as grading papers. As a result, inservice had been largely

informal, occurring whenever teachers had specific questions. This had been somewhat disorganized and had led to the pre-inservice situation.

Relationship of the Problem to the Literature

The need for teacher inservice has been well documented in the literature, with particular focus on the early identification and remediation of problems in very young children. An example of this is the EARLY program which was initiated in Chicago during the 1979-1980 school year (Naron & Perlman, 1981). Its primary aims were tok identify and provide remediation for pre-kindergarten children considered to be at risk for later learning problems. It was recognized by both program developers and teachers that inservice was essential for program success. This is especially the case when identifying children who have normal intelligenc but who show a large discrepancy between abilities in different skills areas. These children are more apt than those with more obvious exceptionalities to go through school without extra assistance and to become frustrated and destined for failure. Inservice is definitely needed to train teachers in the early identification of such youngsters. As Naron and Perlman pointed out, "The successful implementation of the Chicago EARLY Program illustrates

that pre-kindergarten teachers can easily incorporate the identification and remediation techniques into their regular instructional program," (p. 17), thus preventing school failure and poorly developing self-concepts.

The Oklahoma Child Development Associate Policy Advisory Council sponsored a program which focused on children's physical and intellectual competencies (Loveless, 1981). The aims were to build children's self-concepts, promote positive functioning of adults and children in group settings, and to bring about coordination of home and center practices. Staff training was considered essential for keeping staff current on new developments in the field, for satisfying the need for refreshing renewal of the staff, for continuing professional growth, and for helping the staff to meet children's special needs.

Davidson (1980) argued that while teachers are given highest priority in teaching children involved in intervention programs, their contributions become less important away from the classroom. He believed that "the key role of classroom teachers should be explicitly recognized by intensive inservice preparation and ongoing training in the principles and practices of all aspects of such work" (p. 11). He pointed out that

teachers traditionally consider themselves "less" professional than psychologists or consultants and do not feel competent to decide on what should be assessed in children and how to do it. Furthermore, they see themselves as the recipients of information and guidance but not as having a share in the development of basic information which guides programming and teaching (p. 12). He asserted that specialist work has an undeserved aura of "specialness." Since teachers are the logical people to dominate the developmental review process they must, therefore, be given the appropriate training. While this is accomplished best on an inservice basis, training must go beyond the simple and casual use of professional development days or an occasional workshop (p. 12). He advocated systematic training rather than the usual informal and casual approach.

Martin (Coursen, 1976) addressed the need to change attitudes as well as levels of skill and expertise in teachers who may resist mainstreaming of exceptional children. According to Martin, there is a need for massive efforts to work with regular teachers, to instruct them in the pedagogy of special education, and to share in their feelings. He maintains that inservice has, until now, been not only limited but

rationalistic and skill-oriented, thereby failing to respond to the feeling and attitude issues. He also perceived a need to offer more specific skills training to prepare the regular classroom teacher to educate handicapped youngsters. The goal of such training should be to offer teachers the skills required to work with all students. Most such training would have to be inservice to train those already in the field.

Teacher training has been a cornerstone of a program developed by the Saturday School, a school and home learning program for 4-year-old children in the Ferguson-Florissant School District of Washington, DC (Bureau of Elementary and Secondary Education, 1975). This program has focused on the following: (a) individual diagnosis of children's needs and abilities, (b) half-day Saturday school sessions, (c) weekly home teaching visits, and (d) parent follow-up activities. The main thrust has been the identification and remediation of learning problems. With respect to inservice, a training program is conducted by consultants and specialists to stress testing and evaluation, appropriate learning experiences and teaching techniques, task analysis, enhancing skill development, child development, and working with parents.

Elizabeth Knight (1981) examined the need for inservice from another perspective. Although she was concerned primarily with the training of teachers who were involved in cross-cultural assessment, her observations can be generalized to broader school systems. As she maintained, "Many new school programs fail because teachers have not been properly informed about new strategies, nor included in the development, given information about the need for change, nor trained in key aspects of the new approach" (p. 3). Under discussion is a Montgomery County (Maryland) program designed to train regular teachers in approaches to cross-cultural assessment. In addition to the above-mentioned reasons for conducting such training, it was observed that an unusually high number of linguistically and culturally different students were being referred by classroom teachers for evaluation. An investigation revealed that some of these referrals were inappropriate; that teachers who lacked germane information about linguistic minorities might be singling out youngsters for assessment on the basis of their own ignorance. According to Knight, the solution to eliminating unnecessary referrals appeared to lie in "changing attitudes, raising consciousness, and arming the teacher with concrete facts and information about

linguistically and culturally different students" (p. 5).

Another program with similar goals is Project KIDS (Kindling Individual Development Systems), a model program for developmentally delayed and physically handicapped infants, toddlers, preschool children, and their families in Flagstaff, Arizona (Macy, 1976). One of the major components of this program is staff development, the main focus of which "is the identification of knowledge and skills and the development of suitable staff training sessions to maintain and augment existing levels of competency among project staff" (p. 27). The primary areas of such training are childhood development, assessment of multiply handicapped, educational programming, and parent involvement.

The University of South Florida in Tampa, Florida has developed its own program which focuses on early identification and remediation of learning problems. In describing the project, Barnard (1970) stressed the need to upgrade teaching in the various intervention classrooms since the program relies on curriculum already in use in project schools. According to the philosophy exemplified by the program, the quality of instruction would depend on teachers' own competencies. A need for training workshops for all teachers and their

aides was considered the most viable solution.

Martinson and Schrag (cited in Seager, Miller, & Bagby, 1980) see inservice training as a pressing need in rural areas, particularly where preservice teacher programs do not provide training in all of the roles necessary to implement P. L. 94-142. Since the special educator has almost total responsibility for providing adequate learning opportunities for the child, he/she becomes the key to educational improvement. His/her background, knowledge, and effective use of resources are the main avenues to better learning for the child. Martinson and Schrag see inservice as a possible solution for this problem as well as for the problem of high teacher turnover. Statistics from Idaho show that from 1968 to 1978 between 40% to 50% of special education teachers left such positions, largely because of feelings of isolation, lack of continued professional development, lack of administrative support, and low salary levels. Schrag believes that inservice programs would address at least two of these factors. It is important to note that Idaho is not an isolated example, that other rural states have attrition rates ranging from 20% to 30%.

A significant body of the literature focuses on interdisciplinary conflicts, particularly between the

"clinically" oriented school psychologist and the classroom teacher. Pfeiffer (1980) cited studies which confirm that the Child Study Team, while pooling unique skills and perspectives, also creates role confusion and raises issues of territoriality. Research (Murray, Powell, & Ely, 1976) showed that when 10 planning teams were presented with information on 12 cases, both the social history and the psychologist's test-based recommendations were ignored. Reasons for this exclusion were not given, but such oversights were a definite concern to the investigators. Another study (Goldman & Rucker, 1977) found that educators on the teams generally preferred and were more confident with criterion referenced terminology while clinicians favored and were more confident with norm referenced terminology. Such disagreements often cause conflicts which impede the natural flow of the referral process.

Other difficulties center around the relative effectiveness of behavioral approaches and mental health approaches to consultation. Medway and Forman (1980) found that during the initial stage of consultation, teachers usually favor a behavioral approach over a mental health orientation, They were especially impressed with a behavioral consultant's acceptance of a directive and supervisory role, attempts to determine

the environmental variables contributing to problem behaviors, and recommendations of behavioral recording procedures. While they did not devalue the mental health approach, they considered it less appropriate to the particular problem situations with which they dealt. The authors suggest that there are undoubtedly certain types of problems that call for particular consultative styles. "It is with respect to these situations that teachers seem to find behavioral consulting more satisfactory than mental health consulting" (Medway & Forman, p. 37).

Clinicians and educators also differ sharply on the types of data useful in instructional planning. One investigation (Thurlow & Yesseldyke, 1982) showed that school psycholosits listed many more clinical assessment procedures as relevant, whereas teachers seem to rely more on informal, non-standardized measures and on data such as teacher input and behavioral observations. Psychologists showed a high degree of consensus in their preference for the WISC-R, WRAT-R, and Bender. Although teachers did favor any particular tests to such an extent, they mentioned most frequently the WISC-R, PIAT, and Key Math. In addition, they tended more so than psychologists to prefer tests which measure specific academic domains

(p. 9).

The authors concluded that, given such discrepancies between school psychologists' and teachers' positions, research must address the extent to which different types of information can be used to plan effective educational strategies. Much of the literature suggests that standardized tests, in their current state, are not truly helpful in making educational decisions. On the other hand, there is little information available on the extent to which teacher reports and observational data can be used successfully to plan instructional programs. Research in this area has been far too limited in scope.

While some studies imply a diminished role for the psychologist in making placement decisions, a study by a sociologist (Mehan, 1983) showed that professional reports (those of psychologists, nurses, and administrators) were given precedence over those presented by "lay" people (parents and teachers). Mehan maintained that professional reports were accepted without challenge while lay reports were constantly interrupted by requests for clarification and further information. The reason for this is the aura of authority which attaches to the reports by virtue of being obscure, difficult to understand, and embedded in

the institutional trappings of the formal proceedings of the placement committee meeting. This authority lends validity to a mode of decision-making in which decisions are presented, not discussed, credentialled, not negotiated.

Findings by Matuszek and Oakland (1979) failed to support those of Thurlow and Yesseldyke that teachers and psychologists depend on different data sources in selecting children for special education programs. They found considerable overlap between the two groups in terms of the variables used in making different recommendations. "Both groups reflect the importance of children's IQ's, class achievement, test achievement, and home-related anxiety" (p. 123). Thus, both psychologists and teachers consider classroom performance as well as test performance. "That both groups utilized home-related anxiety in making decisions may indicate a common recognition of significant psychological pathology in a child, which may warrant special attention" (p. 123).

Matuszek and Oakland do cite differences between the two groups, however. While teachers made different recommendations for adaptive behavior and self-concept, psychologists tended to underplay these factors. Teachers also made different recommendations for

language background, which psychologists considered unimportant. On the other hand, psychologists tended to weigh socioeconomic status more heavily than did teachers.

Another issue explored by Matuszek and Oakland was the contrast between teachers and psychologists in terms of the relative importance each group assigned to the different traits rather than in terms of which traits they judged to be important. The data suggested that while teachers and psychologists were somewhat close on which variables they used, they differed in the relative importance they gave to IQ and achievement. An example was a case in which a child's test achievement was depicted as passing while his class achievement was depicted as failing. The average teacher placement was 3.56, which suggested a need for special assistance, while the average psychologist placement was 2.33, suggesting regular class placement with teacher consultation. This reflected a meaningful difference in placement recommendations (p. 124).

Other researchers (Dean, 1980) have addressed varying perceptions of school psychologists by novice versus experienced teachers; the need for psychologists to carry out several role functions but to tailor these services to different teachers' needs (Ford & Migles,

1979); and the various conflicts which arise on Child Study Teams because of intrapersonal and interpersonal roles and jealousies (Butler & Maher, 1981). All of these problems point to a need for inservice, which has been advocated by several investigators.

Kumar and Fields (1982), in considering teachers' use of group intelligence test scores, make the cogent observation that there is a strong need for "periodic workshops or seminars by school or educational psychologists on various aspects related to standardized tests. Workshops may serve another purpose of identifying concerns and problems related to the actual implementation of testing programs in the schools" (p. 37). A national survey of elementary schools nationwide (Senft & Snider, 1980) supports Kumar's and Field's position on the importance of inservice. Inservice training was desired by 15.5% of the principals, who saw this as a function of the school psychologist. Most believed that such programs would promote positive mental health in the schools (McDaniel & Ahr, 1965). Through such training the school psychologist's expertise might be passed on to the classroom teacher, who, in turn, would implement the suggestions in their daily work with children.

All of these studies seem to point to two

conclusions: (a) there are certain vital areas on which there is disagreement among professionals, and (b) inservice training might help to break down some of these barriers by providing knowledge in as simple and expedient (and nonthreatening) a manner as is possible.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Objectives

In conducting inservice for her schools, the writer hoped to accomplish the following goals: (a) to familiarize teachers with pertinent measurement and evaluation concepts and tests, (b) to delineate the teacher's role in the referral process and provide selection criteria to identify potential referrals more accurately, (c) to provide information on interpretation of aptitude test data to maximize knowledge of the child's learning skills, and (d) to familiarize teachers with the role of the school psychologist. As a result of the inservice training the writer anticipated less frustration and a more positive working relationship between psychologist and teaching staff.

Behavior Expected

At the end of implementation the following objectives should have been met.

1. Teachers will show an increase in their knowledge about selected measurement concepts, tests, interpretation of test scores, role of school

psychologist, and the referral process. The increase, as measured by the average difference between the pre-and the posttest (multiple-choice format) scores, will be significant at the .05 level.

2. Given 4 case histories, teachers will be able to identify those that need referrals.

3. Teachers will evaluate the practicum favorably on a specially prepared evaluation instrument.

Mechanism for Recording Unexpected Events

The writer maintained a journal of activities during the implementation stage. She recorded comments made of a positive or negative nature and anything unexpected that occurred. She developed a Likert Type program evaluation questionnaire, to find out how well the teachers received the training program.

Measurement of Objectives

The writer designed her own assessment instrument because no such test was available commercially. It consisted of 40 multiple-choice items, covering significant areas of testing and special class placement. The writer chose those items which she considered most relevant to her actual work setting; they focused on scores required for placement, referral procedures, and traits distinguishing categories of exceptionality.

Most of the questions addressed issues which had been problematic and which had caused some breakdowns in communication. Twenty items were selected randomly and used as pretest and the other 20 items were used as posttest. This was done to cut down testing time, and also to avoid teachers answering the same questions twice.

The writer also presented some case studies as test material to find out if teachers used proper criteria in making referrals, interpreted test scores more accurately, etc. There were selected scenarios, half of which qualified for referral and half of which did not.

Upon completion of the practicum, the writer administered a posttest. At the posttest time, the results of both tests were returned to the teachers.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Possible Solutions

There have not been too many solutions to this problem mainly because of the nature of the subject matter. Much of the knowledge is very technical and restricted to certified and licensed psychologists or to those working toward these goals. Of course, teachers can attempt to take such courses on their own, but this is time-consuming, expensive, and unnecessary for their purposes. In addition, most of these courses have prerequisites which only aspiring psychologists would have taken. In terms of inservice training, most such programs have stressed different things, such as activities designed for actual use in the classroom. The writer had chosen the methods most applicable to her particular subject area.

Inservice training has been used in various programs throughout the country in order to increase the knowledge base of and to change attitudes of classroom teachers. Generally, those teachers selected have been involved in pilot studies. One such example is a project that was begun at the University of South Florida (Barnard, 1970) with the aim of identifying and remediating learning problems impeding the progress of elementary school

children. Teachers were given inservice workshops covering psychomotor development, music instruction, literature and the use of puppets in a general language program, the use of audio-visual materials in instruction, and behavioral management in the classroom. Inservice was oriented toward teaching procedures which could be used in the classroom. Handouts were provided to clarify the various topics. Barnard found that the workshops were generally very helpful and elicited enthusiasm from teacher who were receiving what amounted to a refresher course (p. 36). Follow-up was also provided through the curriculum coordinator. In some instances, workshops introduced special programs to be carried on by project personnel, in behavior modification, speech problem identification, and perceptual-motor development.

Concomitant with the workshops was the purchase of special materials by the teachers to pursue instructional goals. This aspect of the project produced resourcefulness and independence which had not been observed previously.

Inservice was a prominent component of the Chicago EARLY project (Naron & Perlman, 1981), which sought to identify and remediate pre-kindergarten problems of children considered high risk. Staff development

involved two half-day sessions, one focusing on assessment and one on curriculum. The first session was devoted to a videotape illustrating the administration of the EARLY assessment. During the second session, assessment was related to the curriculum and included demonstrations of selected instructional activities to illustrate their flexibility. Each teacher was given an assessment kit, manual, and scoring sheets during the first meeting. During the second session they were supplied with an EARLY Instructional Activities book with suggestions for use. They were also given reporting forms to use on a trial basis.

Results of the experiment show that the inservice was judged to be both adequate and useful. Many teachers stressed the value of having seen the videotape before giving the assessment to the children. Overall, the set of EARLY materials seemed to help the teachers teach better; one Head Start teacher said the program "...helps us decide what our weaknesses and strengths are as well as those of the children" (p. 18). According to Naron & Perlman (p. 19), the successful implementation of the program illustrates that the pre-kindergarten teachers can easily incorporate identification and remediation techniques into their

regular instructional program.

The National Education Association (1977) has published a brochure which describes teacher education materials for use with elementary and secondary school teachers. The goal is to build skills in decision-making related to special placement of mentally handicapped students. The learner is presented with a simulated confrontation using a 16mm film, and is then guided through a search and planning system to develop greater insight into problems presented in the film. The learner is directed to a variety of resources, is expected to contact people, and to read more on the subject. Group discussions are then held during which workbooks and tasks are assigned.

Davidson (1980) saw the role of the classrook teacher as key to early developmental review and early identification. He perceived a need for some major shifts in perspective regarding the role of teachers and their principals. Inservice must be done in a systematic fashion, in stages if needed, with outside help if necessary. "It would cost money, time, and effort on the part of a board and a great deal of discussion before decisions could be made, but the quality of developmental review work depends on the quality of the teachers involved and that in turn rests

on solid training" (p. 12).

Macy (1976) described an intervention plan designed for handicapped children in Flagstaff, Arizona. He stressed that the primary thrust is the identification of knowledge and skills and the development of suitable staff training sessions to maintain and augment existing levels of competency among project staff (p. 27). Project staff kept a log of all staff development activities which were then described and analyzed. Appropriate statistical analyses were computed to test the significance of any observed pre-test changes. The instrument used to measure change was still being developed and was undergoing refinement and modification.

David Coursen (1976) described in detail an inservice program developed by the National Institute of Welfare. The primary concern of the article was mainstreaming and its implications for teachers and administrators. Martin (Coursen, 1976) maintained that an important component of preparation for mainstreaming is the need to change attitudes of teachers. Birch (Coursen, 1976) listed several potential problems of concern to teachers, such as behavior in the classroom, interaction with peers in the regular program,

organization of instruction, and coping with physical and emotional problems of the handicapped. Teachers may also question their adequacy of preparation, lack of support services, teacher liability, and parental hostility. There was also a perceived need to prepare teachers for this--to give them the knowledge and skills needed to implement more individualized programs for all of their children. Inservice training was seen as the answer, so that presently employed teachers could be trained.

One inservice program described by Glass and Meckler (cited in Coursen, 1976) involved one intensive summer workshop which equipped teachers with diagnostic, remedial, and behavioral management skills needed for mainstreaming. This program included teaching skills in instructing the mildly handicapped in the regular program, modifying the use of teacher authority, encouraging greater student responsibility in school matters (such as helping other students), and facilitating increased student-teacher dialogue. It was considered successful in terms of giving teachers increased abilities and more self-confidence. Glass and Meckler reached at least two conclusions from the program: (a) Specific skills relative to the

instruction of mildly handicapped children can be isolated and taught to elementary teachers in a relatively short period of time, and (b) functional preparation with its emphasis on developing and practicing specific skills in an action oriented setting may be more productive in terms of educating elementary teachers in special education techniques than traditional university courses, which tend to remain at an abstract level (p. 27).

In Program Guidelines and Recommendations: Early Childhood Education for the Handicapped (Texas Education Agency, 1982) procedures have been described which are useful in promoting staff competencies with regard to serving young handicapped children. These involve allowing early childhood personnel access to state and federal policies, procedures, and regulations regarding special education. A system is instituted whereby current changes in such regulations are disseminated to such personnel who may be directly affected by the change.

The school administrator must provide inservice training and personnel development activities which are related to the specific needs of early childhood education personnel. These programs should be based on the individual's present levels of needs, knowledge,

and training as determined by systematic procedures of needs identification, planning, implementation, and evaluation. Attendance at this inservice should be documented, and a system of compensation and/or credit for personnel should be established.

Diagnostic, therapeutic, and instructional services provided to handicapped children should reflect coordination between public schools and appropriate community agencies. Written agreements should be maintained.

This transdisciplinary approach was recommended as the basis of training because of the unique combination of skills required of early childhood personnel. Such activities might be provided by local district staff, consultants, or colleges. This should be followed up by an effective evaluation procedure to assess the strengths and weaknesses of this inservice.

A booklet published by the Ferguson-Florissant School District in Washington, DC (1975) describes the Saturday School, a school and home program for 4-year old children which stresses identification and remediation of learning problems. Inservice training is a vital component of this program and is provided by consultants and specialists in a 2-week training program before school starts. This is

followed by several sessions throughout the year. Such training focuses on "testing and evaluation, appropriate learning experiences and teaching techniques, task analysis, enhancing skill development, child development, and working with parents" (p. 4). According to the abstract, this inservice has resulted in significant gains for both learning disabled and retarded children who have maintained these gains in regular school situations.

Finally, inservice programs may be particularly important in rural areas, where there may not be enough professionals to serve the handicapped. One such program in northern Alabama provided training to 727 teachers, administrators, and educational diagnosticians during one school year (Seager, Miller, & Bagby, 1980). The format consisted of workshops, summer conferences, and teacher exchange programs. In one program teachers were exposed to classroom situations other than their own, thus allowing them to see other kinds of handicaps and how other teachers deal with them.

Description and Justification for Solution Selected

The goals of most of these programs have been to train teachers in early identification and remediation

of learning problems. To this end, inservice training has focused specifically on classroom activities designed to promote social, perceptual, and verbal development, and has largely succeeded in meeting these aims.

The writer had a somewhat different purpose for conducting her practicum. She covered material which is not directly related to classroom activities but which has definite bearing on pupil welfare. Instruction was provided in areas new to most teachers and never presented before in her work setting. The inservice covered four broad topics: test scores and terms, the referral process, the types of exceptionalities, and placement procedures. This was accomplished in two separate sessions, each of which lasted from one-half to an hour.

To teach about test scores a glossary of terms and a specially prepared pamphlet was provided which covered such terms as mean, median, mode, standard deviation, normal curve, interest test, aptitude test, and other relevant terms. There was also an oral presentation of clinical concepts such as "emotional variables" and depression of scores, which are often found in the personality section of reports. Most of the material was presented through the lecture format,

but discussion and question-answer were encouraged.

All of this material was explored during the first session. The second session was devoted to the referral-testing-placement process. The writer discussed the forms which are needed before a child can be tested (such as visiting teacher report, vision, and hearing) and how a case is opened. She then explained what each test measures. For example, it was pointed out that the WISC-R measures intellectual functioning; the WRAT-R, academic achievement; the Bender-Gestalt, visual-motor integration; and the House-Tree-Person, affective functioning. Explanations were given as to how differences between Verbal and Performance scores on the WISC-R can be diagnostic, and how a pattern of underachievement emerges, as defined by State criteria. Anonymous reports, written by three different psychologists, were compared and contrasted to illustrate variations in style, for instance, the difference between clinical and cognitive orientations.

The differences between Educable Mental Handicap, Learning Disability, and Slow Learning Ability were explored. Since the Learning Disability category has proven to be particularly confusing, a handout explaining symptomatology was distributed. This was

taken from Dade County Placement Procedures. In addition, the category as it is presented in the literature was discussed. Particular emphasis was placed on variability of performance or "test scatter" as opposed to an overall low level of performance.

Finally, some time was devoted to placement procedures and any review of other materials deemed necessary by the teachers. Material explaining placement of Learning Disabled students was distributed and discussed. When this session was completed, the posttest was administered.

This practicum should have benefitted teachers because they will save time and energy on referrals that prove fruitless and because they will get information without added expenditure of time and energy. Furthermore, it would facilitate discussion with the psychologist if they have further questions and concerns.

There were no major difficulties encountered by the writer. Everyone was very cooperative and considered the practicum a worthwhile experience.

CHAPTER V

RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Results

Thirty four teachers from one school and 32 from another school (labeled A and B) participated in the inservice program. Results of the measurement of each objective by school are described in the following subsections.

1. Improvement in knowledge: It was hypothesized that teachers would increase their knowledge base about several concepts related to the referral process. An item bank of 40 items was constructed to evaluate the attainment of this objective. Twenty items were selected randomly for the pretest; the remaining 20 items were utilized on the posttest.

A t-test for correlated means was calculated for each school. A t-value of -10.02 ($p<.001$) was obtained for the 34 teachers in school A, indicating that mean performance on the pretest differed significantly from mean performance on the posttest. A t-value of -6.78 ($p<.001$) was obtained for the 32 teachers in school B, also indicating a substantial mean difference in performance from pretest to posttest. The means and standard deviations are reported in table 2 (page 44).

Table 2

Improvement in Knowledge

Variable	N	M	SD	t-value	2-Tail P-Value
School A					
Pretest		9.206	3.073		
	34			-10.02	.001
Posttest		14.677	2.128		
School B					
Pretest		9.656	2.134		
	32			-6.78	.001
Posttest		13.156	2.749		

Five content areas were treated in the inservice training program: a) measurement concepts, b) tests, c) interpretation of test scores, d) role of the school psychologist, and e) the referral process. Inspection of the difficulty level of posttest items uncovered areas of weakness. A criterion level of 65% passing level was chosen to identify areas of weakness. Items (see Appendix A) passed by fewer than 65% of teachers in School A were #3 (c), 3%; #4 (a), 64%; #7 (c), 39%;

#10 (d), 6%; #15 (e), 64%; and #19 (e), 44%. Of these six, two (#4 and #15) closely approximate the criterion level and indicate sufficient mastery of the concepts measured by the items. Performance on items #3 and #10 indicates that fewer than 10% of the teachers passed either item, demonstrating a definite weakness in the areas of test score interpretation and role of the school psychologist.

Items that were passed by fewer than 65% of teachers in school B were #3 (c), 42%; #4 (a), 52%; #6 (c), 38%; #7 (c), 39%; #8 (a), 61%; #10 (d), 30%; #14 (e), 61%; and #19 (e), 33%. Since problematic items were distributed across four of the five areas, it is evident that no one area was disproportionately difficult. Items #3, #4, #7, #10, and #19 should be re-evaluated before use in future inservice sessions, because teachers in both schools achieved less than 65% mastery on those items. It is possible that these items were somehow flawed and would need to be rewritten for future use.

2. Identifying students for referrals: The second objective required that teachers in both schools be able to identify accurately those case histories necessitating referral. Four case histories were developed describing children with differing problems, and randomly ordered on an answer sheet. Teachers were

asked to evaluate each case to determine its viability for referral. Two cases (items #1 and #2) were appropriate for referral; items #3 and #4 were inappropriate for referral. Teachers' responses (both schools) are summarized in table 3. It shows that for all items teachers in both schools achieved a higher rate of accuracy in making appropriate referrals.

Table 3

Teachers' Views of Cases as Appropriate or Inappropriate for Referral

Item	Rating: Appropriate N	Appropriate %	Inappropriate N	Inappropriate %
Item 1				
School A (N=34)	30	89	4	11
School B (N=32)	27	86	5	14
Item 2				
School A	26	76	8	24
School B	25	78	7	22
Item 3				
School A	10	29	24	71
School B	8	25	24	75
Item 4				
School A	3	8	31	92
School B	4	11	28	89

3. Teacher's evaluation of the practicum: The third objective predicted that teachers would evaluate the practicum favorable. Teachers in both schools were asked to complete a 10-item practicum evaluation scale. A 5-point Likert scale was used with the options strongly disagree, disagree, neutral, agree, and strongly agree to be used as responses. Five items were phrased negatively and five positively to guard against response set. Table 4 presents items used in the Practicum Evaluation Scale.

Table 4

Items Used in the Practicum Evaluation Scale

1.	Questions raised by the pretest were not addressed in the inservice.
2.	All of my questions concerning procedures for special students were not answered.
3.	The coverage of statistical material was incomplete.
4.	This inservice program provided a greater understanding of the role of the school psychologist.
5.	The school psychologist was cooperative and willing to answer questions about the presentation.
6.	The school psychologist encouraged discussion and addressed teachers' needs.
7.	The school psychologist appeared to be unsure of some of the major concepts.
8.	The presentations were logically organized and clearly presented.

Items Used in the Practicum Evaluation Scale (table continued

9. The handouts were not always pertinent to the presentations.
10. Overall, I would recommend this inservice program to other teachers and professionals.

Ratings by teachers were separated by school. Teachers in schools A and B disagreed or strongly disagreed (41% and 44% respectively) with the statement that questions raised by the pretest were not addressed by the inservice program (item #1). School A (67%) and school B (69%) teachers agreed or strongly agreed that the school psychologist addressed teachers' needs (item #6). Teachers in school A (47%) would recommend the program to other teachers as would 41% of the teachers in school B. Overll, the differences between schools is negligible, and teachers from both schools appeared to rate the program as successful in obtaining the desired objectives.

Table 5

Teachers' Evaluation of Practicum Experience

Item	School	SD		D		N		A		SA	
		N	%	N	%	N	%	N	%	N	%
1	A	6	19	9	26	9	26	10	29	0	0
	B	6	19	6	19	12	37	6	19	2	6
2	A	9	26	11	33	10	29	4	12	0	0
	B	6	19	10	31	7	22	7	21	1	3
3	A	4	13	13	39	8	24	7	21	1	3
	B	4	12	11	33	12	37	5	15	1	3
4	A	1	3	3	9	11	32	15	44	4	12
	B	0	0	1	3	5	16	19	59	7	22
5	A	0	0	0	0	4	12	15	44	15	44
	B	0	0	2	6	7	23	13	40	10	31
6	A	0	0	2	6	9	26	19	56	4	12
	B	1	3	3	9	4	13	17	52	7	23
7	A	13	38	14	41	6	18	1	3	0	0
	B	7	22	15	47	8	25	1	3	1	3
8	A	1	3	6	18	6	18	16	46	5	15
	B	0	0	7	22	7	22	12	38	6	18
9	A	8	23	15	44	8	24	2	6	1	3
	B	6	18	11	34	10	32	4	13	1	3
10	A	1	3	5	15	2	35	9	26	7	21
	B	2	6	3	9	5	16	13	40	9	29

Conclusions

While the literature suggests positive gains may be made through the use of inservice training sessions with teachers, school psychologists have not tapped this procedure. Overall results of this practicum suggest that such training should become a part of the school psychologist's repertoire, particularly in dealings with

school personnel.

Results indicated that the first objective, improvement in knowledge, was accomplished. While both schools obtained significant gains, it is evident that teachers in school A performed somewhat better than teachers in school B. It is possible that the superior attendance of teachers in school A during inservice training sessions is responsible for the difference in performance between schools. It is concluded that teachers' knowledge base concerning the role of the school psychologist, referral procedures, and special student eligibility requirements was increased by the inservice training conducted by the writer. There were two areas of weakness pinpointed by posttesting, namely interpreting test scores and understanding the role of the school psychologist. Benefits arising from this improved knowledge base are twofold. First, the somewhat ambiguous job function of the school psychologist has been delineated to school personnel. Second, increased awareness of placement criteria should reduce the number of inappropriate referrals. This is an invaluable gain. As a result, school personnel will be able to utilize their time more efficiently, and fewer incorrectly referred children are likely to be disappointed.

The second objective entailed the ability of teachers to identify which students were appropriate subjects for referral. The expectation of this objective is that teachers would be able to utilize information obtained from the training sessions to spot children with exceptionalities. Results indicate that teachers from both schools were able to apply successfully information presented during the sessions to novel cases. These teachers may now identify students for referral who would have been overlooked previously. The ultimate gains should be made by those students who have been inadvertently neglected by the system, and may reap benefits from special placement.

The final objective anticipated that teachers would perceive the need for such training and rate the program favorably. Examination of the results of the Practicum Evaluation Scale indicates a generally positive perception of the program by participating teachers. Many teachers indicated the need for inservice, and a large proportion would recommend the training to other teachers.

The results of this practicum suggest that inservice training was useful for teachers in those two schools. However, the scope of this project does not encompass long-range examination of teachers to determine the applicability of inservice training programs. Further

investigations should examine the long-term effects of the program on the number and validity of teacher referrals. This information would permit evaluation of the effectiveness of knowledge disseminated during the inservice training sessions.

Recommendations

The following recommendations offer useful suggestions that would be beneficial to professionals implementing inservice training in the future.

1. Incoming teachers should be provided with the inservice information so that they may utilize this knowledge in their capacity as potential sources of referrals. This information would be distributed to new teachers by the school psychologist on an individual basis.

2. The school psychologist will present results yielded by inservice training sessions to area-wide Department of Exceptional Student Education personnel. It is suggested that other school psychologists consider implementing similar programs in their practices.

3. The number of referrals of teachers participating in the inservice program should be compared to the number of referrals made by them prior to inservice training.

Dissemination

The results and implications of this practicum were disseminated at a poster session during the 1987 Summer Institute of Nova University in Fort Lauderdale, Florida. Students, professionals, and administrators actively engaged in the study of early and middle childhood received copies of an abstract describing significant features of the training program. Materials utilized for this project were exhibited. Questions centered around procedural details and project results. Responses generally were favorable, with participants indicating the need for similar activities in their own work settings. Many indicated that the results of inservice training would have long-range benefits.

A report of the results and recommendations will be presented to school psychologists and placement specialists at a staff meeting at the North Area Exceptional Student Education office of the Dade County School System in September 1987. The purpose of this presentation is to encourage professional colleagues to engage in similar projects in their own schools. The ultimate goal is to reduce the number of inappropriate referrals in those schools located in the North region of Dade County.

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APPENDIX A

TEST ITEM BANK

Test Item Bank

____1. A psychological test on which the subject gets the same score regardless of who administers and grades it meets the requirement of
a. objectivity
b. reliability
c. standardization
d. validity

____2. A test meets the requirement of validity if it
a. gives consistent scores
b. can be administered by anyone
c. gives approximately the same scores when taken by a person on two different occasions
d. actually measures what it is intended to measure

____3. A test that can be taken by many persons at the same time and gives a score indicating capacity to learn a new skill is a(n)
a. individual test of aptitude
b. individual test of achievement
c. group test of aptitude
d. group test of achievement

____4. The Stanford-Binet is a (n)
a. individual test of intelligence
b. group test of personality
c. individual test of vocational aptitude
d. group test of interests

____5. The division of items into two categories, verbal and performance, is the distinguishing feature of the
a. Stanford-Binet test
b. Wechsler tests
c. Pinter-Cunningham Primary Test
d. Armed Forces Qualification Test

____6. Intelligence tests are most useful in
a. predicting success in school
b. predicting a person's ability to adjust
c. predicting a person's future income
d. measuring basic intelligence

____7 . People are considered mentally gifted when their IQ is over
a. 110
b. 115
c. 120
d. 130

____8. Mean, median, and mode are all
a. measures of central tendency
b. inferential statistics
c. measures of variability
d. types of percentiles

____9. A normal curve is
a. humped in the middle and at one end
b. flat in the middle and humped on the ends
c. symmetrical and bell-shaped
d. a straight line

___10. A measure of variability is the
a. letter grade
b. standard deviation
c. mode
d. scatter plot

___11. The M-Team consists of
a. school personnel only
b. school psychologist and guidance counselors
c. the guidance counselor and the LEA representative
d. all of the above

___12 A learning disabled child is one who has
a. an IQ in the average range
b. an IQ close to the average range
c. both high and low subtest scores
d. all of the above

___13. A learning disabled child can be placed on the finding of
a. an attention deficit disorder
b. the presence of reversals
c. lowered IQ and high WRAT-R scores
d. slow visual-motor speed

___14. A difference of 20 IQ points between Verbal and Performance areas tends to indicate
a. brain damage
b. poor visual-motor speed
c. poor ego strength
d. all of the above

___15. Public Law 94-142 excludes the following category of student from an education equal to all other children
a. Trainable Mentally Handicapped
b. Educable Mentally Handicapped
c. Learning Disabled
d. None of the above

___16. A correlation coefficient shows
a. causality
b. the central tendency of behavior
c. how two scores covary
d. all of the above

___17. Each member of the M-Team
a. has one vote
b. takes his/her cues from the psychologist
c. is subject to the regulations set up by the State Department of Education and PL 94-142
d. a and c only

___18. The test most frequently used by school psychologists in Dade County to determine cognitive development is
a. Stanford-Binet
b. Wechsler scales
c. Kaufman test battery
d. McCarthy scales

___19. Abnormal behavior is
a. consistent in its occurrence
b. only present in certain select situations
c. violates peer norms but not school norms
d. violates school norms but not peer norms

___20. A psychologist has to be
a. at least certified by the State Department of Education
b. able to prove that he/she has had an internship
c. conversant with the contents of DSM III
d. all of the above

___21. Children should be referred to a psychologist if
a. they are still very young and their writing shows reversals
b. they are very quiet and do not have any friends in the classroom
c. both a and b
d. b only

___22. Hyperactivity is
a. a physiological condition
b. primarily an emotional problem
c. a matter for discipline at home
d. a reflection of the child's family life

___23. In order to be referred to a class for gifted children a child has to be
a. well behaved
b. able to assimilate new material quickly and easily
c. equally outstanding in all areas
d. all of the above

___24. Acting out in school is the result of
a. an emotional problem
b. a physiological problem
c. a metabolic problem
d. all of the above

___25. The best available indicator of future academic achievement is
a. the Wide Range Achievement Test-Revised
b. the Verbal IQ
c. the Woodcock Johnson Battery
d. the child's emotional adjustment

___26. The M-Team has to have as its members
a. the placement specialist
b. the LEA Representative and the psychologist
c. the parents, if they wish
d. a and b only

___27. In order to be able to place a child in a special class it is necessary to have the results of
a. one test
b. two tests corroborating each other
c. two tests and the psychologist's clinical judgment
d. the teacher' opinion based on observations in the school

___28. Slow learners differ from learning disabled students because the former
a. come from lower socioeconomic backgrounds
b. have fewer emotional problems
c. have an overall low level of functioning
d. show variability of performance in various areas

___29. The most helpful measure to differentiate between children is
a. percentile scores
b. standard error
c. standard scores
d. standard deviation

___30. A child can be placed in a Learning Disabilities class
a. at the request of the M-Team
b. at the request of the parent
c. if the difference between IQ and achievement tests is 15 or more standard scores after grade three and up to age 12
d. none of the above

___31. A Sompa has to be administered
a. when the child's IQ is 130
b. when the IQ of a minority child is between 118 and 127

___32. The following category of exceptionality is not required to be re-evaluated every three years
a. gifted
b. trainable mentally handicapped
c. severely emotionally handicapped
d. autistic

___33. The referring teacher is asked to attend staffing because
a. PL 94-142 requires it
b. his/her input is invaluable
c. he/she would be insulted if not invited
d. work samples are required for placement

___34. The one item not required for a referral packet is the
a. teacher observation form
b. referral form
c. the student's work sample
d. vision screening

___35. The standard deviation is a
a. measure of central tendency
b. shows how far a score falls from the mean
c. shows causality
d. is an indicator of the best fitting line

___36. To place a child full time in an Emotionally Handicapped class the psychologist must
a. counsel the student to determine his/her attitudes toward home and school
b. visit the home to see family conditions
c. get three personality measures
d. get permission from the receiving school

___37. A child can be taken out of a special class
a. at the written request of the parent
b. on the basis of teacher judgment
c. at the principal's request
d. on the basis of the child's judgment

___38. When a child leaves the gifted program voluntarily
a. he has to be re-tested to return
b. a staffing has to be held for him to return
c. a staffing must be held to remove him
d. b and c only

___39. District policy is to use tests with
a. a mean of 100
b. a standard deviation of 15
c. a high correlation
d. a and b only

___40. The psychologist's usual test battery includes measures of
a. a child's academic achievement
b. process deficits
c. visual-motor integration
d. all of the above

APPENDIX B

SOME IMPORTANT MEASUREMENT TERMS

SOME IMPORTANT MEASUREMENT TERMS

ABILITY

The power to perform a designated responsive act. The power may be potential or actual, native or acquired. The term implies that the act can be performed now, without further training, if the necessary circumstances are present.

ACHIEVEMENT TEST

A test that measures the amount a pupil has achieved in one or more subject fields or in the general aspects of schooling.

BATTERY

A group of several tests of which the results are of value individually, in combination, and/or totally.

GRADE PLACEMENT EQUIVALENT

A score or a scale developed to indicate the school grade and month in that school grade which is then assigned to the average chronological age, mental age, test score, or other characteristics of pupils classified at this school grade. A grade placement equivalent of 6.4 is interpreted as the fourth month of the sixth grade.

MEAN

The sum of a set of scores divided by the number of scores

MEDIAN

The middle score in a set of ranked scores. It is the point above or below which an equal number of ranked scores lie. It corresponds to the 50th percentile.

MODE

The score or value that occurs most frequently in a distribution.

NORMAL DISTRIBUTION CURVE

A derived curve based on the assumption that variations from the mean are by chance. It is bell-shaped in form

and adopted as true because of its repeated recurrence in the frequency distributions of sets of measurements of human characteristics in psychology and education. It has many useful mathematical properties. In a normal curve, scores are distributed symmetrically about the mean, as many cases at various equal distances above the mean as below the mean, and with cases concentrated near the average and decreasing in frequency the further one departs from it.

PERCENTILE

One of the 99 point scores that divide a ranked distribution into groups, each of which contains 1/100 of the scores. It is a point (score) in a distribution below which falls the per cent of cases indicated by the given percentile. Thus, the 73rd percentile denotes the point or score below which 73 per cent of the scores fall in this particular distribution of scores.

RELIABILITY

The degree to which a pupil would obtain the same score if the test were readministered to the pupil (assuming no additional learning, practice effects, etc).

STANDARD DEVIATION (S. D.)

It is a statistic used to express the extent of the deviations from the mean for the distribution. About 95% of the scores lie within the limits of two standard deviations above and below the mean. About 99.7% of the cases lie within the limits of three standard deviations above and below the mean.

STANDARD ERROR OF MEASUREMENT

Indicates how closely the individual's score compares with his true score. If the standard error is 3.0, the chances are 2 to 1 that the score lies within 3.0 points either way of his true score, or 19 to 1 that it is not more than 6.0 points (2 times Standard Error of Measurement) from his true score.

STANINES

A unit that divides the norm population into nine groups. Except for Stanines 1 and 9, the groups are spaced in half-sigma units, with the mean at Stanine 5.

Stanine	1	2	3	4	5	6	7	8	9
% in Stanine	4	7	12	17	20	17	12	7	4

VALIDITY

A test is valid to the extent that we know what it measures or predicts.

APPENDIX C

IMPORTANT CONCEPTS IN TESTING

IMPORTANT CONCEPTS IN TESTING

Qualities of tests used by psychologists

Test validity: whether a test actually measures what it purports to measure. For example, an IQ test should measure ability rather than cultural background.

Reliability: a test should yield the same or similar scores for the same person of different occasions. For instance, if Johnny is tested in 1956 and then again in 1957 he should fall within the same general ability range.

Group tests: tests given to more than one person at the same time (Stanford Achievement Test)

Individual tests: administered on a one-to-one basis (the Stanford-Binet or Wechsler scales)

Aptitude test: a test measuring the ability to learn a new skill

Achievement test: a test measuring skills already learned. The Wide Range Achievement Test (WRAT-R), for instance, measures decoding skills, spelling, and computational skills.

There are two major tests in the psychologist's battery: the Stanford-Binet, Form L-M (or the new Stanford-Binet-Revised) and the Wechsler. Both are individual ability tests.

Binet: Gives a Mental Age and an IQ
Wechsler: Gives Verbal, Performance, and Full Scale IQ scores. It has a mean of 100 and a standard deviation of 15.

The basic function of IQ tests is to predict school success, not personal adjustment, future salary, or basic intelligence. This last quality involves adaptation and included social abilities not completely tapped by pencil and paper tests.

People tend to form a curve of distribution of all traits. Most fall in the middle of this curve. There are three measures of central tendency (tendency to clump in the middle): mean, median, and mode.

Mean: average score

Median: middle score

Mode: most frequent score

In a normal curve of distribution these three measures are the same.

A normal curve is bell-shaped. Scores vary on the curve. A measure of this variability is the standard deviation, which shows how distant a score is from the mean.

Another important score is the standard score, which is the most helpful measure for differentiating children. This score relates an individual's scores to the rest of the population. It functions like an IQ score.

The best indicator of future academic achievement is the Verbal IQ. This addresses the child's vocabulary, abstract reasoning, fund of knowledge (based on background and cultural experiences), ability to concentrate. All of these traits are helpful for achieving within the school setting.

The usual test battery examines ability, achievement levels, process deficits (visual and auditory), and visual-motor integration (design copying). It also examines personal adjustment.

One other statistic to be aware of is the coefficient of correlation, which shows how two scores covary with each other. Practical application: do children who perform well on the WISC-R always do well on the Wide Range Achievement Test. Do these children function best within the classroom setting. The coefficient of correlation pinpoints the degree to which they rise and fall together.

EXCEPTIONALITIES

Major exceptionalities found in the regular school (non center):

Learning Disabled
Educable Mentally Handicapped
Emotionally Handicapped

Exceptionalities found in center schools:

Gifted
Socially Maladjusted
Self-contained Educable Mentally Handicapped
Trainable Mentally Handicapped
Physical and Sensual Handicapping Conditions
Autistic

APPENDIX D

CASE HISTORIES

CASE HISTORIES

Items Appropriate for Referral

1. A 5-year old child shows some bizarre behaviors. He is echolalic. He smiles a lot as if listening to something. He hides under the furniture in the classroom. When spoken to he does not respond as do others but looks blankly ahead. His parents are concerned and have spoken to the school principal, counselor, and teacher about getting extra help for him. Other children ridicule him and this aggravates the behaviors.

2. A child is a social isolate. He has flat affect. When others are reacting to stimuli in the classroom, he acts as if nothing had occurred. He is embarrassed when called on to recite. He also shows signs of depression such as motoric slowing and lack of concern about his appearance. Since he is eight years old, his parents have indicated concern to school personnel. They maintain that he does not interact with other family members or with other children in the neighborhood to any great extent.

Items Inappropriate for Referral

3. A 9-year old Black child has always lived in a lower class neighborhood. He shows good motor skills but tends

to react to verbal questioning with monosyllabic verbalizations. His achievement test scores indicate high arithmetic but lower reading levels. The parents are moderately concerned but have expressed the opinion that he takes after the father, who was slow in school but did well later. Personal and social adjustment is generally satisfactory.

4. A 10-year old child does well in school (earns mostly B's and A's). He is very cooperative in his dealing with others. He helps the teacher with daily classroom routines and turns in his homework assignments regularly. He tends to work at or one year above grade level. He does not show much divergent thinking but he usually knows the answers to the teacher's questions. The teacher thinks he might be gifted, and is encouraging the parents to sign referral papers.